

The authors selected as their area of study a group of islands, of some 25,000 population, where communications were good, parishes small with accurate records, influx of new residents low, removal from the district usually to certain preferred and easily accessible areas, and hospital facilities satisfactory. Over a period of forty-five years (1900-44) the records were examined, and 1,312 registered cases of psychosis, low-grade oligophrenia and suicide discovered. (Rigid diagnostic standards were applied in the course of the investigation.) All hospital records for those institutions covering the area, and the areas of preferred removal, were also examined for the same period. A third source of material was found in the records of the mental welfare organization of the area. Field investigations, based on the discovery of probands by the above means, were carried out in all proband families over a period of several years, with a view to discovering secondary cases and expanding genealogical information. (It is recognized that even with field investigations undiscovered mild and marginal cases of psychiatric illness will exist.) Consanguineous marriages in the area were also studied.

The monograph next discusses the methods used in calculating morbidity risks, and provides background demographic data concerning the area studied. The bulk of the present volume is thereafter concerned with the analysis of the material obtained, and its results concerning age at onset of disease, hospitalization and mortality, and morbidity risks in the general population; the frequency of consanguineous marriages in the general population and among the parents of the diseased is also compared, there being no statistically significant increase for the parents of psychotics, but an increased frequency of first- and second-cousin marriages for the parents of oligophrenics. (A second monograph, to be published, will analyse morbidity risks for parents and sibs of probands, and give a clinical and genetic analysis of this material.)

A brief sample of the findings will be of interest. Of the psychotic material, 34 per

cent was schizophrenic, 18 per cent manic-depressive, 15 per cent senile, 18 per cent other, and 15 per cent undiagnosed. Of cases of psychosis, 55 per cent were women; of oligophrenia, 62 per cent men. Mean age of onset for female schizophrenics was thirty-two, for men twenty-eight; in hebephrenia mean onset was at twenty-three, in catatonia thirty-five, in paranoid schizophrenia forty-six. Manic-depressive psychosis had a mean age of onset of forty-two for men and forty for women; the mean age for senile psychosis was seventy, for pre-senile fifty-four. There are grounds for the assumption of a real coincidence between schizophrenia and oligophrenia, and grounds for rejecting the notion that epilepsy commonly accompanies oligophrenia. The (remaining) mean expectation of life is less for schizophrenics and oligophrenics than for the general population, and the excess mortality for those with senile and pre-senile psychoses is higher still. Total morbidity risk for schizophrenia is 1.6 per cent: for manic-depressive illness the percentages are 0.9 in men and 1.2 in women: for pre-senile psychosis, 0.7 and 1.0: for senile psychosis, 0.6 and 0.8. Allowing for other diagnoses of psychosis, the aggregate morbidity risk for psychosis ("all forms") is about 4.7 per cent for men and 5.7 for women; and for low-grade oligophrenia (roughly under an I.Q. of fifty-five) it is 1.0 and 0.75. The national suicide morbidity risk is estimated at 2.67 per cent for men and 0.57 for women.

From the aspect of methodology, and for the clinical and social importance of the results of the investigation, this volume and its succeeding companion monograph will be of great value in the literature of social psychiatry.

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## SOCIOLOGY

**Spence, James, Walton, W. S. Miller, F. J. W., and Court, S. D. M.** *A Thousand Families in Newcastle upon Tyne: An Approach to the Study of*

*Health and Illness in Children.* London, 1954. Oxford University Press (for the Nuffield Foundation and Nuffield Provincial Hospital Trust). Pp. xiv + 217. Price 10s. 6d.

THIS book is a record of an inquiry designed to study the types and incidence of disease in infancy and childhood, to trace their origins and measure their effects. The survey deals with a stratified random sample of about 1,000 babies—all infants born to Newcastle residents in the months of May and June 1947, representing one-sixth of the annual births and numbering 1,142 infants. While this number forms a fair cross-section of the urban-industrial population of Newcastle including even a family "precariously dependent on the gains of a professional burglar," the families are not sufficiently representative of the well-to-do who live beyond the city boundaries. Of these 1,142 infants, forty-four died during the first year (incidentally confirming the infant mortality rate of forty-four for 1947 for Newcastle), 127 removed and four (families) left the Survey, leaving 967 still living in the city in June 1948. The inquiry is still continuing and is designed for some seven years.

*Pattern and Incidence of Illness:* Of the 1,142 infants, only 203 or about one-fifth escaped any significant illness. Of the remaining babies, each had an average of two illnesses and one in ten had three or more infections, an illness being defined as "any episode in which there was evident alteration in the infant's well-being and activity, or for which the child was taken to the family doctor or hospital."

Respiratory infections were responsible for more than fifty-seven per cent of all illnesses, infective diarrhoea and vomiting for nearly ten per cent, infectious fevers and skin sepsis for seven per cent each. These four types of infections accounted for eighty per cent of all infective illness. There was a definite social gradient in all infective illness.

For the group as a whole, there were sixty-six accidents to sixty-one children requiring medical attention on thirty-one occasions.

Half of the accidents were due to falls—from the pram, somebody's arms, or from the cot or chair or table. The Report considers most of the accidents as preventable and "their prevention will demand more intelligent design of the living room and kitchen, introduction of safe saucepans and kettles, routine application of protective devices to fires of all kinds, more effective brakes on prams, better lighting of stairs and passages, with stair-gates guarding the entrance to upstairs flats, and above all the education of parents in guarding against the dangers which lurk in every home for the growing child."

*Housing:* Economic and housing conditions play a significant part in any study of infantile disease and death. Considerable sub-standard housing was revealed among almost a thousand families at the time of the Survey, when there was "full employment" and only fourteen families were without jobs. By statutory definition, one house in seven in the Survey was considered unfit for habitation, for forty per cent of the homes lacked a fixed bath and twenty-five per cent of the families had an outside toilet (water closet) shared by two to seven families. Ten per cent of the families were living in overcrowded conditions according to statutory definition. Again, if each member of the family is counted as an adult, nearly thirty-five per cent of the families were living in overcrowded conditions.

*Mother's ability to cope:* The study, in an attempt to correlate the home environment with the health of the children, discovered a dominating factor—the capacity of the mother. The quality of maternal care is properly regarded as an environmental factor on a par with the standard of housing and the availability as well as adequacy of medical care. In fact, the ability of the mother to cope with any situation was found to be almost the deciding factor, *ceteris paribus*, in ensuring the health of the children. According to the Survey's method of classification it was found that eighty per cent of the mothers could be counted as satisfactory, fourteen per cent were unsatisfactory, three per cent were unclassified

and three per cent changed for the better during the period of the Survey. The extent of the mother's ability to cope was related to such obvious factors as structurally defective homes, unhappy and unstable family relations, poor maternal health and, in some cases, with unemployment and consequent economic insecurity of the father and the family. The Report rightly points out, "If the mother failed the children suffered. If she coped with life skilfully and pluckily, she was a safeguard of their health. In spite of lapses and failures the mother stands out as the cornerstone of the family structure, and our experience confirms that in all sections of society she remains the chief guardian of child welfare, a fact which is sometimes in danger of being forgotten. A family with a good mother can withstand a feckless and even a vicious father, but rarely can a family survive if the mother fails."

*Proposed reforms:* The Report concludes with five suggestions for future action. They deal with Medical Education, Family Practice, Family doctor and Local Health Authority, Local Health Authority and Economy of Co-operation. The first suggestion is to shorten the curriculum to four years, with the last two pre-registration years of a student's practical clinical training free from examinations in non-relevant subjects. Secondly, the family doctor should be better trained to handle children's diseases and there is no need for specialist paediatricians. Thirdly, the local health authorities should use the family doctors as their chief field-workers. The last suggestion points out the need to create in every locality a method of regular consultation between all the parties concerned in promoting child health—the parents, the family doctor, the local health authorities, the health visitor etc.

A significant, if startling, conclusion of the study is that the great drop in infant

mortality and morbidity witnessed in the last forty years is due more to the decline in poverty and more and better public knowledge of health matters than to better or more medical aid or doctoring. Whatever the reason, the progress is only relative, and it is undeniable that there is yet considerable room for improvement in all fields related to infant health. The number of infant deaths under one year in the Survey showed that it was the same as the city's infant mortality rate of forty-four which was a little higher than the national rate. The Survey estimates that at least fifteen deaths could have been prevented enabling the infant mortality rate to drop down to thirty per 1,000 live births. Actually the report suggests a target of twenty-three for the future. Had this rate been achieved in 1947 about 127 infant lives could have been saved in Newcastle alone. Today, the national infant mortality rate of twenty-eight per 1,000 live births is high compared to twenty in Sweden and twenty-two in New Zealand and Holland. There is no reason why this low figure cannot be attained, given better housing, wider dissemination of infant care knowledge to mothers and planned families. A nation's children are too precious a heritage to be wasted by either preventable disease or premature death.

The Survey is the joint work of the late Professor Sir James Spence, Dr. W. S. Walton, medical officer of health for Newcastle, Drs. F. J. W. Miller and S. D. M. Court of the Durham University Department of Child Health. The book "takes on the role of a memorial, a memorial largely of his own fashioning" to Sir James Spence, who was the great spirit behind the Thousand Family Survey. This study is also a splendid example of the fruitful collaboration between the Nuffield Foundation and the Department of Child Health at Durham, and as such, much credit is due to both institutions.

S. CHANDRASEKHAR.

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